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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/758, 132 01/12/01 HOKE

J 4590/4591A (C)

EXAMINER

IM52/0808

VANDY, T

ART UNIT	PAPER NUMBER
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1754

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DATE MAILED:

08/08/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No. 09-758,132	Applicant(s) HOKE et al.
	Examiner VANOY	Group Art Unit 1754

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE THREE MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication .
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

APPLICANTS ARE GIVEN ONE (1) MONTH FROM THE MAIL DATE OF THIS ACTION TO STATUS CORRECT THE DEFICIENCIES IN THE INFORMATION DISCLOSURE STATEMENT.

- Responsive to communication(s) filed on _____.
- This action is FINAL.
- Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 1 1; 453 O.G. 213.

Disposition of Claims

- Claim(s) 1-15 is/are pending in the application.
- Of the above claim(s) _____ is/are withdrawn from consideration.
- Claim(s) _____ is/are allowed.
- Claim(s) 1-15 is/are rejected.
- Claim(s) _____ is/are objected to.
- Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- The proposed drawing correction, filed on _____ is approved disapproved.
- The drawing(s) filed on _____ is/are objected to by the Examiner.
- The specification is objected to by the Examiner.
- The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- All Some* None of the CERTIFIED copies of the priority documents have been received.
- received in Application No. (Series Code/Serial Number) _____.
- received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

Attachment(s)

- Information Disclosure Statement(s), PTO-1449, Paper No(s). 4 Interview Summary, PTO-413
- Notice of Reference(s) Cited, PTO-892 Notice of Informal Patent Application, PTO-152
- Notice of Draftsperson's Patent Drawing Review, PTO-948 Other _____

Office Action Summary

DETAILED ACTION

Information Disclosure Statement

The information disclosure statement dated May, 29, 01, which has been filed as paper no. 4, does not fully comply with the requirements of 37 C.F.R. 1.98 because the reference denoted "Derwent Abstracts (see Attached)" does not comply with any of the criteria set forth in 37 C.F.R. 1.98 and the reference denoted "Manganese Compounds, Vol. 15, pages 1003-1050" does not set forth the author, the book (or journal) title, the publisher, the edition (and/or editor) and the publication date. Since the submission appears to be *bona fide*, the Applicants are given **ONE (1) MONTH** from the date of this notice to supply the above mentioned omissions or corrections in the information disclosure statement. **NO EXTENSION OF THIS TIME LIMIT MAY BE GRANTED UNDER EITHER 37 C.F.R. 1.136(a) OR (b).** Failure to timely comply with this notice will result in the above mentioned information disclosure statement being placed in the application file with the noncomplying information **not** being considered. See 37 C.F.R. 1.97(i).

Oath/Declaration

The oath or declaration is defective. A new oath or declaration in compliance with 37 C.F.R. 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because the oath sets forth that this application claims 35 USC 120 benefit of 09-493,347, which is not listed among the "related applications" set forth on pg. 1 Ins. 4-11 in the Applicants'

specification. None of the related applications set forth on pg. 1 Ins. 4-11 in the Applicants' specification have been listed in the Applicants' oath.

Specification

- a) The status of the related applications set forth on pg. 1 lines 4-10 in the Applicants' specification should be updated.
- b) The status of 08-537,208 set forth on pg. 17 line 23 in the Applicants' specification should be updated.
- c) The use of the trademark "Carulite" on pg. 25 Ins. 5 and 10; pg. 29 ln. 40; pg. 54 Ins. 4 and 23; pg. 55 ln. 8, etc. and the trademark "Teflon" on pg. 54 ln. 10 have been noted in this application. **The entire specification should be checked for trademarks, and all trademarks should be capitalized wherever they appear and be accompanied by the generic terminology.**

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

- d) The abstract is objected to because it does not particularly point out and describe the details of the Applicants' invention. The abstract does not give any examples of the "catalytic and adsorptive compositions" or the "metal surfaces". The abstract does not point out what is done to improve the adhesion properties of the catalytic and adsorptive compositions. The abstract does not mention the aluminum auto radiator of Applicants' claims 8 and 15.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by European Pat. App'n. No. 0 351 036 A1 to DeAngelis et al.

Example 3 on pg. 5 in EP 0 351 036 discloses a catalyst composition comprising platinum and rhodium compounds (i. e. the catalyst) and silicone (i. e. the claimed silicone polymers).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

The person having "ordinary skill in the art" has the capability of understanding the scientific and engineering principles applicable to the claimed invention. The references of record in this application reasonably reflect this level of skill.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the Examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. The Applicants are advised of the obligation under 37 C.F.R. 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the Examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over European Patent Application 0 351 036 A1 to DeAngelis et al. in view of U. S. Patent 5,208,198 to Nakano et al. and further in view of the English translation of German Patentschrift DE 40 07 965 C2 to Hager.

EP 0 351 036 discloses a method for making a catalytic composition useful for the same purpose of removing contaminants, such as carbon monoxide; hydrocarbons and nitrogen oxides, out of a gas (please see pg. 2 lines 38-42 and the data set forth in Table 2 on pg. 6), wherein pg. 3 lns. 28-58 sets forth that the catalytic composition was made by:

providing the catalytic components (which may include the manganese oxide of Applicants' claims 1, 2, 6, 9, 10 and 13: please see pg. 3 lines 34-35) and working them up to form "catalyst-agglomerate bodies" (please see pg. 3 Ins. 42-43);

coating the catalyst-agglomerate bodies with an organic binder, which may be the silicone of Applicants' claims 1 and 9: (please see pg. 3 Ins. 46-49), and

(evidently) adhering the catalyst-agglomerate bodies onto the surface of a metal powder (which may be the aluminum of Applicants' claims 8 and 15) by the adhesiveness provided by the organic binder (please see pg. 3 Ins. 49-58).

The difference between the Applicants' claims and EP 0 351 036 is that Applicants' claims 1, 4, 5, 7, 9, 11, 12 and 14 call for the use of a clay as the binder (such as attapulgite), where the description of the binders set forth on pg. 3 Ins. 46-50 in EP 0 351 036 do not mention clays.

U. S. Pat. 5,208,198 is directed to the same art of making catalysts useful for removing the same NO_x, CO, etc. out of a gas (please see col. 4 Ins. 17-26), wherein the catalyst was made with a binder, such as clay to include attapulgite, to (evidently) mold/adhere the catalytic materials into a cohesive catalytic composition.

It would have been obvious to one of ordinary skill in the art at the time the invention was made *to modify* the process and composition described on pg. 3 in EP 0 351 036 *by substituting and/or including* the clay binders mentioned in col. 4 Ins. 4-16 in U. S. Pat. 5,208,198 *in lieu of and/or in addition to* the silicone binders mentioned on pg. 3 Ins. 46-50 in EP 0 351 036 into the process and composition described on pg. 3 Ins. 28-58 in EP 0 351 036, in the manner called for in at least Applicants' claims 1, 4, 5, 7,

9, 11, 12 and 14, because the courts have already determined that the substitution of one known functional equivalent (in this case, the clay binders described in col. 4 lns. 4-16 in U. S. Pat. 5,208,198) in lieu of the another known functional equivalent (in this case, the organic binders mentioned on pg. 3 lns. 46-50 in EP 0 351 036) is obvious even in the absence of an express suggestion to make such a substitution: please note the discussion of the *In re Ruff*, 256 F.2d 590, 118 USPQ 340 (CCPA 1958) and the *In re Fout*, 675 F.2d 297, 213 USPQ 532 (CCPA 1982) court decisions set forth in section 2144.06 in the MPEP (Rev. 1, Feb. 2000) for further details.

The difference between the Applicants' claims and EP 0 351 036 and U. S. Pat. 5,208,198 is that Applicants' claim 3 calls for coating the catalytic composition onto the surface of an atmosphere contacting surface of a metal substrate and Applicants' claims 8 and 15 call for coating the catalytic composition onto the surface of an aluminum auto radiator.

The English translation of DE 40 07 965 in its claim 1 and Fig. A disclose and illustrate a method for applying a catalytic composition comprising manganese oxide onto a vehicle radiator by spraying the catalytic composition onto it.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the catalytic composition of EP 0 351 036 (and/or of EP 0 351 036 and U. S. Pat. 5,208,198) onto a vehicle radiator, as required in at least Applicants' claims 3, 8 and 15, because the disclosure set forth in claim 1 and Fig. A in DE 40 07 965 fairly teaches that such manganese oxide-based catalytic compositions are applied onto the surfaces of vehicle radiators, etc. . . , and in so doing one would

achieve the taught advantages of removing pollutants out of the air when the vehicle is in operation, as at least fairly suggested on pg. 1, 3rd full paragraph and the paragraph bridging pages 1 and 2 in DE 40 07 965 and to also achieve the expected advantage of promoting the removal of ozone out of the air, which is the field of endeavor set forth in the paragraph bridging pages 1 and 2 DE 40 07 965.

Also, note that the silicone binders mentioned on pg. 3 Ins. 46-48 in EP 0 351 036 A1 and/or the clay binders mentioned in col. 4 Ins. 4-16 in U. S. Pat. 5,208,198 are expected to promote the adhesion of the catalytic composition onto the metal surface of the auto radiator of DE 40 07 965.

The following references, which are indicative of the state of the art, are made of record:

U. S. Pat. 6,214,303 B1 disclosing a method and apparatus for treating the atmosphere;

U. S. Pat. 6,212,882 B1 disclosing an assembly, method and motor vehicle for cleaning ambient air in the vicinity of the internal combustion engine, and

U. S. Pat. 6,190,627 B1 disclosing a method and device for cleaning the atmosphere.

Any inquiry concerning this communication should be directed to Timothy C. Vanoy at telephone number 703-308-2540.

Timothy Vanoy/tv *Timothy Vanoy*
Timothy Vanoy

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